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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|--------------------------|------------------------------|------------------|
| 10/552,528 | 10/11/2005 | Craig Brainerd Van Cleve | 35010/150US | 6655 |
| 32827 7590 04/17/2007 THE OLLILA LAW GROUP LLC 2060 BROADWAY SUITE 300 BOULDER, CO 80302 | | | EXAMINER PATEL, HARSHAD R | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2855 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 04/17/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/552,528

Applicant(s)

VAN CLEVE, CRAIG BRAINERD

Examiner

Harshad Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-15, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) 7, 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/20/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 8-15, 17 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa et al. (5,398,554) (hereinafter Ogawa).

Ogawa teaches a Coriolis flow meter comprising at least one flow conduit (35), a drive system (36) coupled to the flow conduit and a balance system (39) coupled to the flow conduit, wherein the balance system is sized and located such that the momentum of the balance system is equal and opposite to the momentum of the drive system (col. 5, lines 30-57). The balance system is coupled to the conduit using leaf spring (60). As to the leaf spring stiffness and the balance mass causing the natural frequency of the balance system to be less than the drive frequency of the flow meter would be an inherent characteristic since such would be a requirement in order to acquire proper measurement results.

Allowable Subject Matter

3. Claims 7 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4. Applicant's arguments filed 3/21/07 have been fully considered but they are not persuasive. It is acknowledged that the Ogawa reference describes a bolted mass attached to the conduit. However, the mass to the conduit is adjusted such that the frequency is balanced between the measuring tube and the balance bar. It is known that when the mass is not properly disposed on the pipe at a specific location the frequency and thus the momentum, which is mass

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time the velocity, is not maintained at the fixed value. Momentum is measured based on the mass and the velocity and also the frequency is dependent on the mass and velocity of fluid flowing through the conduit. The frequency changes based on the density and rate at which the flow is flowing through the conduit. Thus to maintain the frequency in the balance bar to be equal and opposite the measuring tube, the mass on the balance bar is adjusted. Similarly the adjustment of the mass on the balance bar would affect the momentum of the balance system as they are related. Thus one having ordinary skill in the art would provide a weight of the balance bar that may be adjusted depending on the type rate of the flowing medium. As to how the mass is attached to the conduit is within the scope of the skilled artisan. The mass can be welded or glued to the conduit. Generally the mass is mounted at the center of the conduit to centralize the frequency and momentum balancing within the length of the conduit. This it is also necessary and required that Fig. 1 show where the balance system is positioned on the flow conduits.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harshad Patel whose telephone number is (571) 272-2187. The examiner can normally be reached on Monday-Thursday (6:30 AM-5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on (571) 272-2180. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Harshad Patel
Primary Examiner
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HP
4/12/07